Work Orde February 10-12				*801	131*						Page 1
Revision ID:	D412-664-2			Accept	*N900)040	100) *	Setup Star	1.73	S1* S2*
Start Date: Required Date: 2	10/02/2012 24/02/2012	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item Customer:						
	Process Pla	an: MC5	Date: 12/02/ Date:	/ / / / / / / / / / / / / /		Date:		F	Run Stai Sto	17	R1* R2*
Sequence ID/ Work Center ID	· ·	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Rev	ision Nbr									
D412-664-243	Rev	E(DEO)									
100	·-,	MORI SEIKI CNC LA	THE LARGE	0.00		····	·· ··		or .		.,
Mori Seiki	$\{X_i \in Y_i\}$	Memo		0.00				/l	Ψ		
Mori Seiki CNC Lath	e Large	2-Turn fir		OT8534 on both ends as pe	er Folio FA166		a Gr	nam, (L 12	102/1	6
*110 *110*	. ,	QC1- Inspect dimension	ons to dimension sheet	0.00			*.	1	8		
QC Quality Control		Memo		0.00		•	**		•		
Quanty Control				€ <u></u>		1	m	1991, L	12	102	116

Dart Aerosp	ace Ltd
-------------	---------

								•••	•				
W/O:		<u> </u>	W	ORK ORDER CHANGE	:S								
DATE	STEP	PRO	CEDURE CH	ANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector				
 :							ļ						
	<u> </u>												
Part No	:	PAR #:	_ Fault Cat	egory:	NCR: Yes	No DQ	A :	_ Date: _					
	R	esolution:	_ Dispositi	on:	QA: N/C CI	: N/C Closed: Date:							
NCR:		W	ORK ORE	ER NON-CONFORMA	NCE (NCF	R)							
DATE	STEP	Description of NC		Corrective Action Section		Verific	ation	Approval	Approval				
DAIL	SIEF	Section A	Initial Chief Eng	Action Description Chief Eng	Sign 8 Date	Section	on C	Chief Eng	QC Inspector				
. *							•						
,													
		·											

80131

Page 2

February-10-12	? 11:33:47 Al	M 									
Item ID: Revision ID:	D412-664-2	03TRN		Accept	*N900	040	100) *	Setup Sta	i A	S1*
Item Name:	Crosstube Tu	rning Detail							St	op *N	S2*
Start Date: Required Date	10/02/2012 : 24/02/2012	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item I Customer:	D:					
Reference:			•								
Approvals:	Process Pla	ın:	Date:	Tooling:	Da	ate:		!		art *N	R1*
	QC:		Date:	SPC (Y/N):	Da	ate:			St	^{₀₀} *N	R2*
Sequence ID/ Work Center I	D	Operation Description		Set Up/ Run Hours	Tool ID		Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120		MODI SEIVI CNC LAT	HE LADOE	0.00							
120 Mori Seiki		MORI SEIKI CNC LAT	HE LARGE	0.00					Ø	· 	
Mori Seiki CNC La	the Large	2- File trans 3- Remove		166		Q.	NW	n.L	12/0	52/16	,
130		QC1- Inspect dimension	s to dimension sheet	0.00							
130 QC Quality Control		Мето		0.00			W On O		2/12		
						4	171	IL 1	7/07	116	
140		QC8- Inspect parts - seco	and check	0.00				//	1		
140 QC Quality Control		Memo		0.00				M/	12	ol	(6(_))



Duit AC	ospace	Liu								
W/O:			W	ORK ORDER CHANG	ES					
DATE	STEP	PRO	CEDURE CH	ANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
			•							
Part No	:	PAR #:	Fault Cate	egory:	NCR: Yes	s No DQ	A :	Date: _		
	R	esolution:	Disposition	on:	_ QA: N/C	Closed:	sed: Date:			
NCR:		V	WORK ORE	ER NON-CONFORMA	NCE (NC	R)	•			
DATE	STEP	Description of NC		Corrective Action Section		Verific	cation	Approval	Approval	
DAIE	SIEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign Dat		on C	Chief Eng	QC Inspector	
									,	
							<u></u>			
		·								
•										
						ļ				

Insp.

February-10-12 11:33:47 AM D412-664-203TRN Item ID: *N900040100* Accept Setup Start **Revision ID:** Item Name: Crosstube Turning Detail **Start Date:** 10/02/2012 Start Qty: 1.00 Cust Item ID: **Required Date:** 24/02/2012 Req'd Qty: 1.00 **Customer:** Reference: Run **Approvals: Process Plan:** Date: Tooling: Date: Stop QC: Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Reject Accept Reject **Work Center ID Description** Run Hours Qty Qty Number Stamp Code 145 0.00 *145* Crosstubes 0.00 Memo Crosstubes 150 Crosstubes Chemical Conversion 0.00 *150* HandFXtube 0.00 Memo Hand Finishing Crosstubes ÷ 160 Q23- Inspect Part Finish 0.00 0.00 Memo Quality Control

Dart Aerospace Li	[Q
-------------------	----

W/O:		WORK ORDER CHANGES											
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector						
2-2-2	160	Sloved read QC7	9) 12-2-21		an engle	ţ, f						
					•								

Part No:		PAR #:	Fault Category:	NCR: Yes No	DQA:	Date:	
	Resolution:		Disposition:	QA: N/C Closed	:	Date:	<u></u>

NCR:	WORK ORDER NON-CONFORMANCE (NCR)									
		Description of NC		Corrective Action Section B		Verification	Approval	Approval		
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	QC Inspector		
•										
								<		
				•						
		·				·				

0.00

0.00

QC21- Final Inspection - Work Order Release

Memo

180

180

Quality Control

V12-03-21

Page 4

Insp.

	. Jopasi										
W/O:			WC	ORK ORDER CHANG	iES						
DATE	STEP	PRO	OCEDURE CHA	NGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
											
							· · · · · · · · · · · · · · · · · · ·				
Part No	•	PAR #:	Fault Cate	gory:	_ NCR	: Yes N	lo DQ	A :	_ Date: _		
	R	esolution:	Dispositio	n:	_ QA:	N/C Closed: Date:					
NCR:			WORK ORD	ER NON-CONFORM	ANCE	(NCR)					
DATE	STEP	Description of NC			ion B	<u> </u>	Verific	ation	Approval	Approval	
DAIL	SIEF	Section A	Initial Chief Eng	Action Description Chief Eng		Sign & Date	Section	on C	Chief Eng	QC Inspector	
		·									
	,	·									

Picklist Print

February-10-12 11:33:52 AM

Work Order ID: 80131

80131

Parent Item:

D412-664-203TRN

Parent Item Name: Crosstube Turning Detail

D412-664-203TRN

Start Date: 10/02/2012

Required Date: 24/02/2012

Page 1

Start Qty: 1.00

Required Qty: 1.00

- C manit 12/02/12

Comments:

IPP Rev:A 08-03-06 new issue DD verified by:eec

IPP Rev B 08.04.02 Removed polish EC verified by: DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6009-129		Manufactured	No			120	Each	43.0000	1	1	-		
D6000_12	Ω								**				

170009-179

Crosstube Material

Location Loc Oty Loc Code LG 43 43

W/O:			WC	ORK ORDER CHANGI	ES	-		· .		
DATE	STEP	PRO	CEDURE CHA	NGE	-	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No		PAR #:	Fault Cate	gory:	NCI	R: Yes N	lo DQ /	A:	Date:	<u> </u>
	Re	solution:	Dispositio	n:	_ QA	: N/C Clos	sed:		_ Date: _	·
NCR:		V	VORK ORD	ER NON-CONFORMA	NCE	(NCR)			•	
DATE	STEP	Description of NC		Corrective Action Section	on B		Verific			Approval
DAIL	JILF	Section A	Initial Chief Eng	Action Description Chief Eng		Sign & Date	Section	on C	Chief Eng	QC Inspector
•						,				
										·
						•		,		
		·		·						
				· · · · · ·		*				

DART AEROSPACE LTD	Work Order:	80131
Description: Crosstube Assembly (412 High Aft)	Part Number:	D412-664-243
Inspection Dwg: D412-664-243 Rev: E		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X	First Article	Prototype
---	---------------	-----------

	nspection Sheet awing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
	2.684	+0.005/-0.000	2.689			mirc	ouc-04-05
	2.748	+0.005/-0.000	2,753				
	-, 2.884	+0.005/-0.000	2-885				
	3.019	+0.005/-0.000	3.023				
	3.163	+0.005/-0.000	3.164				
	3.308	+0.005/-0.000	3.3/2				
⋖	3.429	+0.005/-0.000	3.431				
SIDE	2.990	+0.005/-0.000	2.493				
S	2.618	+0.005/-0.000	2.622				
	0.200	+/-0.010	,200			vern	ewc-04
	R0.063	+/-0.010	.06h		L.	AG.	
	R0.500	+/-0.010	.500			, A	
	4.971	+/-0.030	4.976			vern	cnc-08
	**		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			V	
	2.684	+0.005/-0.000	2.688			MOVIME	cwc-04-05
	2.748	+0.005/-0.000	2.753)			
	2.884	+0.005/-0.000	2.889				
	3.019	+0.005/-0.000	3025				
	3.163	+0.005/-0.000	3.164				
	3.308	+0.005/-0:000	3.3/2	_			
.00	3.429	+0.005/ 2 0.000	3 4 31				s
SIDE	2.990	+0.005/-0.000	2.993				q
တ	2.618	+0.005/-0.000	2.627			V	
2 4 , .	0.200	+/-0.010	.200			vern	ONC-08
274	R0.063	+/-0.010	.062			RG	
	R0.500 ,	+/-0.010	.500			ιγ	
	4'.971,	+/-0.030	4970	//		vern	cuide
	124.100	+/-0.020	124.10			tope	WM.V-02

Measured by: m// Date: 12/02/12 | Audited by: m/m/ Prototype Approval: N/A Date: N/A

Rev	Date	Change	Revised by	Approved
Α	04.06.16	New Issue · (P/O D412-664-203)	KJ/JLM	
В	06.03.09	Dwg Rev updated	KJ/JLM	
С	07.05.08	Tolerance updated for dimension 4.971	KJ/JLM	N1
D	10.02.02	Dimension 124.100 was 124.09	KJ &	178/

Dait Aci	vapace	5 Liu							• ** 2		
W/O:			WO	RK ORDER CHANG	ES						
DATE	STEP	PRO	OCEDURE CHAP	NGE	Ву		Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
		·									
							·				
Part No:		PAR #:	Fault Category: NC			es N	o DQ	A :	Date:		
	R	esolution:				Clos	sed:		Date:		
NCR:	× .		WORK ORDE	R NON-CONFORMA	NCE (N	CR)		ē.	• .	-	
		Description of NC Corrective Action Section E				ver			Approval	Approval	
DATE ST	SIEP	STEP Section A	Initial Chief Eng	Action Description Chief Eng		ın & ate	Section C		Chief Eng	QC Inspector	
								•			
- <u>‡</u> . §											
								·			
-	Manual Residence							·			
خوا اسرو	معمون		1 1		1		1		ļ		

Item	Qty -243	Part Number	Description
1	X	D412-664-243	CROSSTUBE ASSEMBLY (412 HIGH AFT)
2	1	D6009-129	CROSSTUBE
3	2	D3595-063-570	RUBBER CUSHION
4	1	D2896-1	SUPPORT
5	2	D3189-1	CHAFING SHIELD
6	2	D2856-600-1009	ABRASION STRIP
7	4	MS21920-28	CLAMP
8	2	MS21920-30	CLAMP (OR MS21920-32)
9	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTROMBELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)

GENERAL NOTES:

D

- 1) MATERIAL: MANUFACTURED FROM D6009-129
- FINISHED LENGTH = 124.100±0.020 (BEFORE BENDING/TRIMMING)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2 PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- IDENTIFICATION: SCRIBE DART PART NUMBER "D412-664-243" AND BATCH NUMBER ON INSIDE OF CUFF USING VIBRATING STYLUS.
- 7) WEIGHT: 47.0 lbs (PER IIN-D212-664)
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) RUN CUTTER OFF PART. BLEND OUT EDGE LONGITUDINALY, TRANSITION SHOULD BE SMOOTH.:
 10) BEND PROGRESSIVELY WITH A MINIMUM OF 8 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2896-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 TO THE SURFACE OF D2896-1 THAT WILL BE IN CONTACT WITH THE CROSSTUBE PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-30 CLAMPS (OR -32) WITH D3595-063-570 RUBBER CUSHIONS TO SECURE THE D2896-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMPS ARE OPPOSITE OF CROSSTUBE SUPPORT.
- 14) INSTALL D2856-600-1009 ABRASION STRIPS WITH A 0.13 REF GAP ON BOTTOM SIDE OF CROSSTUBE PER QSI 035.
- 15) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 16) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUTHAS NOT BOTTOMED-OUT AFTER TORQUING.

12/02/10 @ DEO'ATTACHED

DELEASED 2009 -10-29

В

REFORMAT/REVISE GENERAL NOTES 09.09.30 REORGANIZED VIEWS AND REFORMATTED DRAWING TO CURRENT STANDARDS; RELOCATED FLAG #6 PER PAR 08-046 (ZN A6-3); ADD TOLERANCE (ZN B6-3, C4-3, C8-3 & C5-3); MOVED TURNING DETAIL & UPDATED TOLERANCE TO SHEET 4. REMOVE D2732-058, CHANGE TO D3595-063-570 07.03.09 REMOVE D2856-600-1087, ADD D2732-058 & MB 06.10.27 MAGNOBOND 6398, MS21920-32 WAS MS21920-30 ADD HOLES FOR COMPATABILITY WITH BHT/AA 05.02.04 SKIDTUBES NEW ISSUE Α 01.10.17 PH REV. DESCRIPTION BY DATE DESIGN DART AEROSPACE LTD DRAWN HAWKESBURY, ONTARIO, CANADA RF CHECKED DRAWING NO. REV. E MFG, APPR, D412-664-243 SHEET 1 OF 4 APPROVED / TITLE 3 DE APPR. CROSSTUBE ASSEMBLY (412 HI AFT) COPYRIGHT © 2001 BY DART AEROSPACE LTD

IT IS PRIVATE AND COMPRIENTIAL AND IS SUPPLIED ON THE EXPRESS COMMIT

SECTION ANY PRIPADOUS OR COMMITTED TO ANY OTHER PERSON

WRITTEN PERSON AND ANY OTHER PERSON

WRITTEN PERSON AND ANY OTHER PERSON

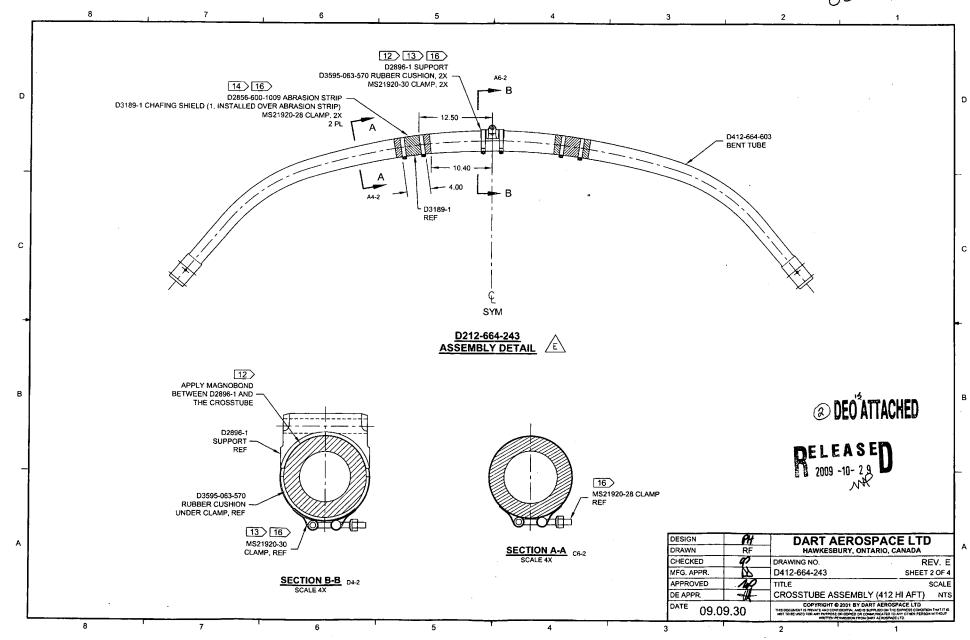
WRITTEN PERSON

WRITTEN

WRI DATE 09:09:30

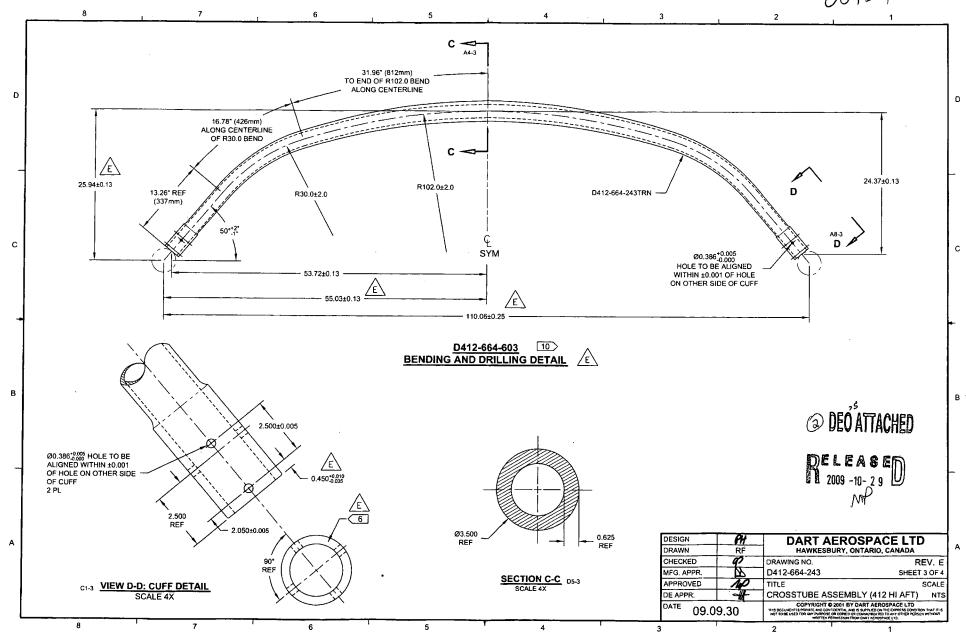
1 .

	. Copaco								
W/O:			V	ORK ORDER CHANGE	S				
DATE	STEP	PRO	OCEDURE CH	IANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No	:	PAR #:	Fault Ca	tegory:	NCR: Yes	No DQ	QA: Date:		
	Re	solution:	Disposit	ion:	QA: N/C Clo	sed:		Date: _	
NCR:			WORK OR	DER NON-CONFORMA	NCE (NCR)			
DATE	STEP Description of NC Section A		Corrective Action Initial Action Description Chief Eng Chief Eng		Section B On Sign & Date		cation on C	Approval Chief Eng	Approval QC Inspector
							-		
									·
							• •		
					·				
			-				!		
							!		
							!		



Dart	Aer	osp	ace	Ltd
------	-----	-----	-----	-----

	. ооршо.	- 							
W/O:			W	ORK ORDER CHANG	ES				
DATE	STEP	PRO	OCEDURE CH	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
						,			
-			· ·· · · · · · · · · · · · · · · · ·						
Part No	•	PAR #:	Fault Cat	egory:	NCR: Yes	No DQ	A:	Date:	
		esolution:							
NCR:		,	WORK OR	DER NON-CONFORMA	NCE (NCR)			· · · · · · · · · · · · · · · · · · ·
DATE	CTED	Description of NC		Corrective Action Section		Verific	ation	Approval	Approval
DATE	STEP	STEP Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Secti	Section C	Chief Eng	QC Inspector
							·		
	:								
٠							: i		·
							· · · · · · · · · · · · · · · · · · ·		
		· · · · · · · · · · · · · · · · · · ·							
							:		
	1	I .	1 1		!	1		1	1

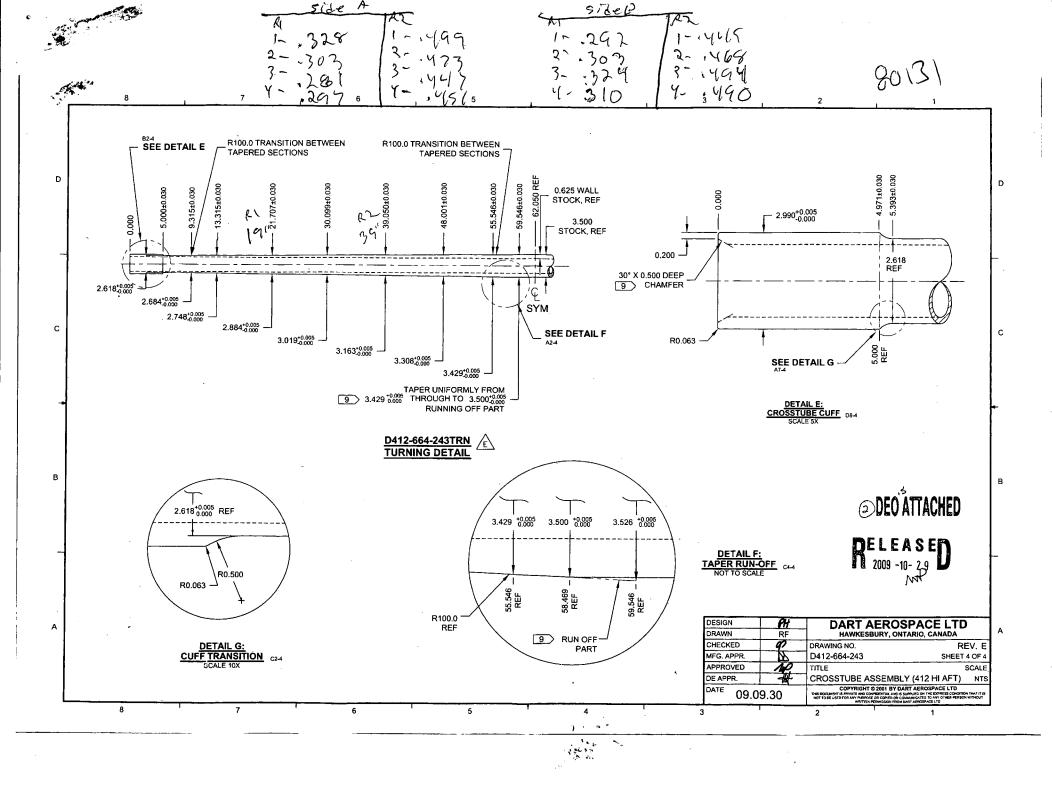


Dart Aerospace Ltd	Dart	Aer	ospa	ace	Ltd
--------------------	-------------	-----	------	-----	-----

W/O:			V	VORK ORDER CHANG	BES						
DATE	STEP	PROC	EDURE CH	IANGE	В	у	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
		·							3	***	
									or y — more ≇	n >+	
			<u> </u>				· · ·	1.5 6			
								:			
									y ,		
Part No	:	PAR #:	_ Fault Ca	tegory:	_ NCR: `	es N	lo DQ	\ :	_ Dàte: _		
	R		_ Disposition: QA								
NCR:		W	ORK OR	DER NON-CONFORM	ANCE (1	ICR)					
DATE	STEP	Description of NC	Corrective Action Section Initial Action Description			n B Sign &		ation	Approval Chief Eng	Approval QC Inspector	
<u> </u>		Section A	Chief Eng	Chief Eng		Date	Secu	on C	Chief Eng		
									٠. '		
·									2.5		
		·									
			•								
,											
	i		I		į į		1				

NOTE: Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE



W/O:			WO	RK ORDER CHANG	ES			· · · · · · · · · · · · · · · · · · ·				
DATE	STEP	PRO	OCEDURE CHAN	IGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector			
		PAR #:	Fault Categ	jory:	NCR: Yes No DQA: Date:							
	Re	esolution:	Disposition: QA			losed:		Date: _	 .			
NCR:	·		WORK ORDE	R NON-CONFORMA	NCE (NCI	₹)						
DATE	STEP	Description of NC	Corrective Action Section B				cation	Approval				
	JILI	Section A	Initial Chief Eng	Action Description Chief Eng	Sign o		on C	Chief Eng	QC Inspector			
		,			·			l				
							,					
	1	A SAME A SAME	1 Back 200 Back		1	l		1	ì			

DRAWING NO.	TITLE	REV. E	DART AEROSPACE LTD	D.E.O. NO.	SHEET NO.	SCALE
D412-664-243	CROSSTUBE AS	SEMBLY (412 HI AFT)	ENGINEERING ORDER	D412-664-243-E-1	SHEET 1 OF 2	NTS
DRAWN	S CHEC	CKED JAP	MFG. APPR. Z	APPROVED MAP	DE APPR.	
DATE 11.03	3.31 DATE	11/03.31	DATE //.03.31	DATE' 11/03:3)	DATE 11-03.31	

PURPOSE:

REMOVED ABRASION STRIP IN FAVOR OF A THIN LAYER OF PROSEAL 890.

CHANGE:

PARTS LIST IS AMENDED AS FOLLOWS:

<u>IS:</u>

Item	Qty -243	Part Number	Description
6	0	D2856-600-1009	ABRASION STRIP

WAS:

6	2	D2856-600-1009	ABRASION STRIP

NOTES 2 AND 14, SHEET 1 ARE AMENDED AS FOLLOWS:

IS:

2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2

MASK UNDERSIDE OF CROSSTUBE AS SHOWN (HATCHED AREA)

PAINT OUTSIDE PER DART QSI 005 4.2

AFTER PAINTING, APPLY CLEAR COAT ON HATCHED AREA

14) APPLY A THIN COAT OF PROSEAL 890 ON INSIDE CONCAVE SURFACE OF D3189-1 CHAFING SHIELD AND LET CURE PER MANUFACTURER'S INSTRUCTIONS. INSTALL PROSEALED D3189-1 CHAFING SHIELD ONTO CROSSTUBE BY APPLYING A THIN COAT OF PROSEAL 890 ONTO CROSSTUBE. BE SURE TO ELIMINATE ANY AIR GAPS.

WAS:

2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2

PAINT OUTSIDE PER DART QSI 005 4.2

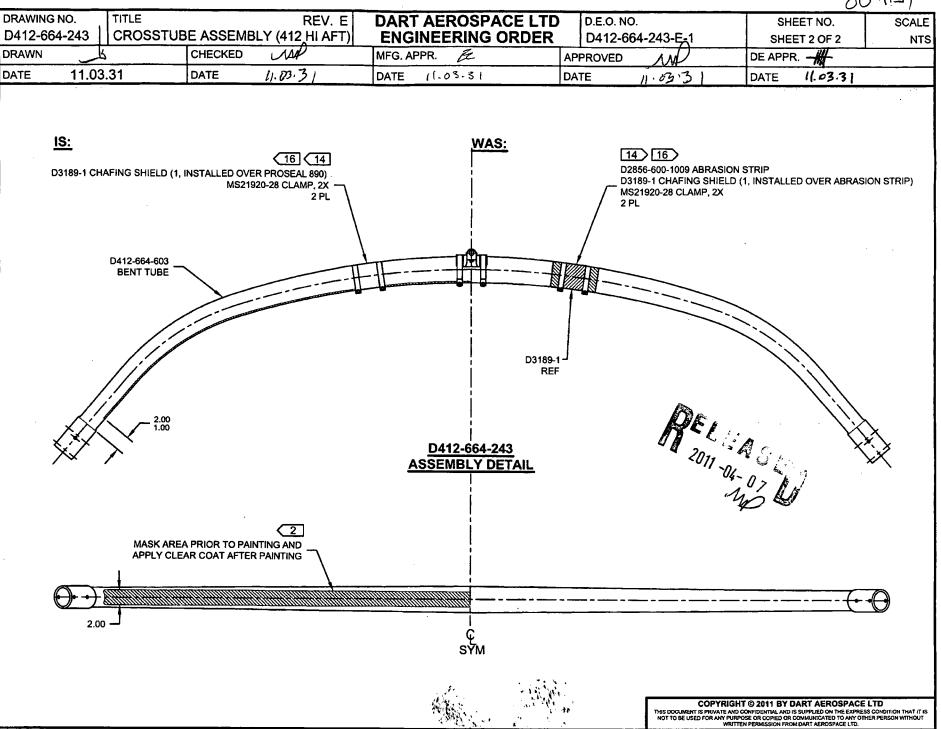
14) INSTALL D2856-600-1009 ABRASION STRIPS WITH A 0.13 REF GAP ON BOTTOM SIDE OF CROSSTUBE PER QSI 035.



									
W/O:		- , * , , , , , , , , , , , _ , _ , _ , _ , _ , _ , _ , _ , _ , _ , , , , , , , ,	W	ORK ORDER CHANG	ES				
DATE	STEP	PRO	CEDURE CH	ANGE	Ву	Date	lo DQA: Date: _	Approval QC Inspector	
 									
Part No: PAR #:			_ Fault Cate	egory:	_ NCR: Yes	No DQ	A:	_ Date: _	
	Res	solution:	_ Disposition	on:	_ QA: N/C Clo	sed:		Date: _	
NCR:		W	ORK ORE	ER NON-CONFORMA	NCE (NCR)			·
DATE	CTED	Description of NC		Corrective Action Secti		Verific	ation	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Secti	on C	Chief Eng	QC Inspector
				·					
									:
								,	
		,							
							,		

80.13)

4.58



	•									
W/O:		<u></u>	WC	RK ORDER CHA	NGES					
DATE	STEP	PRO	DCEDURE CHA	NGE	By Date Oty Approval Ap		Approval QC Inspector			
	DATE STEP PROCEDURE CHANGE By Date Qty Chief Eng / Prod Mgr Part No: PAR #: Fault Category: NCR: Yes No DQA: Date: Resolution: Disposition: QA: N/C Closed: Date: WORK ORDER NON-CONFORMANCE (NCR) DATE STEP Description of NC Corrective Action Section B Verification Approval	•								
	Part No:PAR #: Resolution: NCR:Description of NC									
<u> </u>				, <u>, , , , , , , , , , , , , , , , , , </u>						
					,					
			Fault Cate	gory:	NCI	R: Yes N	lo DQA	:	_ Date: _	
	Re	esolution:	Disposition	1:	QA	N/C Clo	sed:		Date: _	
NCR:		,	WORK ORDI	R NON-CONFOR	RMANCE	(NCR)				
DATE	STED	Description of NC				Oim 0			Approval	Approval
	U.L.	Section A		Action Descripti Chief Eng	on 		Sectio	n C	Chief Eng	QC Inspector
Part No:										
								·		
					·					
						·				

DRAWING N	NO. TITLE		REV. E	DART AEROSPACE L	.TD D.E.O. NO.		SHEET NO.	SCALE
D412-664	-243 CROSSTU	UBE ASS'Y (4	112 HI AFT)	ENGINEERING ORDE	ER D412-664-243 - E-2		SHEET 1 OF 1	NTS
DRAWN	P	CHECKED	ASS	MFG. APPR.	APPROVED M	DE	APPR.	
DATE	11.09.07	DATE	11.09.19	DATE /(.09.19	DATE 11.09.19	DA	TE //. 09.19	

PURPOSE:

REPLACE MAGNOBOND WITH 3M DP460 SCOTCH-WELD EPOXY ADHESIVE

CHANGE:

IS:

ltem	Qty -243	Part Number	Description
9	A/R	SCOTCH-WELD DP460	EPOXY ADHESIVE, 3M SCOTCH-WELD

WAS:

9	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)

NOTE 12 & 16, SHEET 1 IS AMENDED AS FOLLOWS:

IS

- 12) INSTALL D2896-1 CENTER SUPPORT USING A 0.04" TO 0.07" THICK LAYER OF SCOTCH-WELD DP460 PER QSI 015. LET CURE FOR 24 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 16) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING. PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER ADHESIVE HAS CURED FOR 24 HOURS.

WAS:

- 12) INSTALL D2896-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 TO THE SURFACE OF D2896-1 THAT WILL BE IN CONTACT WITH THE CROSSTUBE PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 16) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.



COPYRIGHT © 2011 BY DART AEROSPACE LTD

THIS DOCUMENT IS PROVATE AND CONSIDERITIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS

NOT TO BE USED FOR ANY PURPOSE OR COPTED OR COMMANINCATED IS DAY OTHER PERSON WITHOUT

WRITTEN PERMISSION FROM DART AEROSPACE LTD.

Dart Aero	space l	_td
-----------	---------	-----

W/O:		WORK ORDER CHANGES	,								
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approva QC Inspector				
•				:							
;			= -								
				de la companya de la							
			-			,	** 1, *				

Part No:	· 	PAR #:	Fault Category:	NCR: Yes No	DQA:	Date:	
>	Resolution:		Disposition:	QA: N/C Closed	l:	Date:	···· / -74

NCR:		. V	VORK OR	DER NON-CONFORMANCI	E (NCR)			
		Description of NC	Corrective Action Section B			Verification	Approval	Approva
DATE STEP	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	QC Inspect
		· · ·			*			
	* **						. 4	
					,			•
-		-			1	v	<i>y</i>	
					,			, , , , , , , , , , , , , , , , , , ,
• .								